WASTE MANAGEMENT

WASTE MANAGEMENT OF ILLINOIS, INC.
601 Madison Road
East St. Louis, Illinois 62201
(618) 271-6788
(618) 271-1227 Fax

July 16, 2012

Illinois Environmental Protection Agency
Bureau of Air – Compliance Section #40
1021 North Grand Avenue East
Springfield, Ill 62702

163075AAL – St. Clair County
Cottonwood Hills Recycling and Disposal Facility

NSPS Semi-Annual Report for Period January 1, 2012 to June 30, 2012

Dear Sirs:

This letter transmits the NSPS Semi-Annual Report for the above referenced reporting period at the above referenced facility.

If you have any questions or require additional information, please call me at (618) 271-6788 Ext 2122 or (314) 568-2025.

Sincerely,
Waste Management of Illinois, Inc.

Ernest H Dennison, PE
District Engineer

cc: IEPA – Collinsville Field Office
2009 Mall Street
Collinsville, Illinois 62234

COTTONWOOD HILLS
RECYCLING AND DISPOSAL FACILITY

NSPS SEMI-ANNUAL REPORT

For the Reporting Period
01/01/12 to 06/30/12

Prepared By
Waste Management of Illinois, Inc.

July 2012

1.0 Introduction

This document consists of the semi-annual report for Cottonwood Hills Recycling and Disposal Facility in Marissa, Illinois and has been prepared in accordance with 40 CFR 60.757(f). This report covers the period of gas system operations from January 1, 2012 to June 30, 2012.

Documented in this report are exceedances of monitored parameters under 40 CFR 60.756, periods of downtime for gas collection/control devices, and any expansions/modifications to the gas collection system during the reporting period. The report is organized into three main sections: Collection systems, Control Devices and Landfill.

The gas collection system currently in place at the site consists of 20 vertical gas collection wells. The wells are connected to the gas collection laterals and header pipe which leads to a 3000 scfm open flare (control device).

The gas mover equipment is comprised of a blower at the flare station.

2.0 Collection System Summary

2.1 Exceedance of Monitored Parameters

Gauge Pressure at each Gas Collection Wellhead (40 CFR 60.756 (a)(1))

- Report all instances of positive pressure measured at the gas collection header of each individual wellhead, including value and length of time measured.
- Per 40 CFR 60.753 (b), record instances when positive pressure occurred at a wellhead in an effort to avoid a landfill fire.

There were no instances of positive pressure measured at a wellhead during the reporting period (See Exceedence Report in Attachment 1).

Monthly Oxygen or Nitrogen Concentration at Each Gas Collection Wellhead (40 CFR 60.756(a)(2))

- Report all instances, on a per well basis, when nitrogen concentrations exceeded 20% or oxygen concentrations exceed 5%. Report date, value and length of time of each exceedance.
- Detail action taken within 5 days to correct exceedance. Report date that exceedance was corrected (must be less than 15 days).

There were two instances when the oxygen concentration were above the regulatory level of 5% during the reporting period (See Exceedence Report in Attachment 1).

Gas extraction well MW09 is broken below ground and is scheduled to be re-drilled/replaced within the regulatory allowed time frame and gas extraction well MW20 had the vacuum adjusted to bring the oxygen concentration below 5% within the regulatory time frame. Therefore, these wells are considered to be in compliance.

Temperature of the landfill gas at each wellhead (40 CFR 60.756(a)(3))

- Report all instances, on a per well basis, when landfill gas temperature exceeded 55°C (131°F).
- Detail action taken within 5 days to convert exceedance. Report date that exceedance was corrected (must be less than 15 days).

There were multiple instances of a temperature exceeding 131°F as measured at the wellhead during the reporting period (See Exceedence Report in Attachment 1). These wells have received USEPA approved temperature variances or have pending variance requests (See Attachment 2 for variance submitted during this reporting period). Therefore, these wells are considered to be in compliance.

2.2 Record of Operation

Description and duration of all periods when the gas stream from the collection system was diverted from the control device through a bypass line (40 CFR 60.756(b)(2)) for enclosed flare, engines or turbines, or 40 CFR 60.756(c) for utility flares).

The gas collection system at Cottonwood Hills RDF does not have a bypass line. Therefore, there were no periods of time that flow was diverted through a bypass line. All flow was directed to the permitted control device (open flare).

Description and duration of all periods when the collection system was not operating for more than 5 days.

There was no period of time during which the collection system was not operating for more than 5 days during the reporting period.

2.3 Record of Expansion

Date and location of all newly installed wells or collection system expansion (40 CFR 60.757(f)(6)).

There were no new gas collection wells installed during the reporting period.

3.0 Control Device Summary

3.1 Monitored Parameters

Flare Flame (Utility Flare)

- Report all periods of flare flame absence (40 CFR 60.758(c)(4)).

The open flare at Cottonwood Hills RDF is equipped with a thermocouple to continuously determine that a flame is present via temperature. Upon loss of flame (drop in temperature), the thermocouple automatically shuts down the blower.

In addition, the blower inlet control valve is automatically closed to prevent uncontrolled discharge. The lack of a flame at the flare is not indicative of an emissions exceedance, since the system will not operate when a flame is not present.

Flow (Utility Flare)

- Report all periods during which the control device was not operating for more than one hour; report duration of each event (40 CFR 60.757(f)(3)).

A Table of periods when the control device (open flare) was not operating for more than one hour is provided in Attachment 3. No raw landfill gas was emitted through the control device during the downtime. Therefore, the control device did not allow emissions of raw landfill gas for more than one hour.

3.2 Performance Testing

Performance Test (Utility Flare)

- Complete initial/annual performance test on the open flare in accordance with IEPA-BOA Construction Permit application number 06100058.

The performance test for 2011 was submitted on November 30, 2011. The performance test for 2012 will be submitted this fall.

4.0 Landfill Summary

4.1 Monitored Parameters

Surface Scan

- Report the location of each exceedance of the 500 ppm methane concentration, and the concentration recorded at each exceedance location (40 CFR 60.757(f)(5)).

The quarterly methane surface scans were conducted at the facility as required. A Table of exceedances is provided in Attachment 4. Any exceedances were corrected and re-monitored within the required timeframes.

Semi-Annual Sampling/Analysis

- Perform semi-annual sampling and analysis of landfill gas entering the control system in accordance with IEPA-BOA application number 06100058.

Sampling and analysis of the landfill gas is conducted in conjunction with the performance test for the flare.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL -- PERMIT SECTION
P.O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

FOR APPLICANT'S USE
Revision #: _____
Date: _____ / _____ / _____
Page _____ of _____
Source Designation:
_____

COMPLIANCE AND GENERAL REPORTING FORM	***FOR AGENCY USE ONLY***
	ID NUMBER:
	PERMIT #:
	DATE:

THIS FORM IS USED FOR EITHER OF THE FOLLOWING:

- TO REPORT AND CERTIFY COMPLIANCE OF AN ENTIRE SOURCE OR SPECIFIC ITEMS OF EQUIPMENT WITH ALL APPLICABLE REQUIREMENTS DURING A REPORTING PERIOD, OR
- TO IDENTIFY AND ENSURE PROPER PROCESSING OF A SUBMITTED REPORT. THIS FORM SHOULD BE USED AS THE COVER SHEET OF THE SUBMITTED REPORT.

SOURCE INFORMATION

1) SOURCE NAME:
Cottonwood Hills Recycling and Disposal Facility

2) DATE FORM PREPARED:	3) SOURCE ID NO. (IF KNOWN):
July 2012	**163075AAL**

GENERAL INFORMATION

4) INDICATE FOR WHICH OF THE FOLLOWING THIS FORM IS BEING COMPLETED:

☒ **TO REPORT AND CERTIFY COMPLIANCE OF THE SOURCE OR SPECIFIC ITEMS OF EQUIPMENT WITH ALL APPLICABLE REQUIREMENTS**

☐ **TO IDENTIFY AND ENSURE PROPER PROCESSING OF A SUBMITTED REPORT**

5) PERIOD COVERED BY THIS REPORT:

FROM: **01 / 01 /2012** TO: **06 / 30 / 2012**

6) NAME AND PHONE NUMBER OF PERSON TO CONTACT FOR QUESTIONS REGARDING THIS REPORT:

NAME: **Ernest Dennison** TITLE: **District Engineer**

PHONE#: **(618) 271-6788** EXT: **2122** or (314) 568-2025

THIS AGENCY IS AUTHORIZED TO REQUIRE THIS INFORMATION UNDER ILLINOIS REVISED STATUTES, 1991, AS AMENDED 1992, CHAPTER 111 1/2, PAR. 1039.5. DISCLOSURE OF THIS INFORMATION IS REQUIRED UNDER THAT SECTION. FAILURE TO DO SO MAY PREVENT THIS FORM FROM BEING PROCESSED AND COULD RESULT IN THE APPLICATION BEING DENIED. THIS FORM HAS BEEN APPROVED BY THE FORMS MANAGEMENT CENTER.

FOR APPLICANT'S USE
_____

APPLICATION PAGE _____

WM01404

COMPLIANCE OF SOURCE OR EQUIPMENT DURING REPORTING PERIOD

- COMPLETE ITEM 7 BELOW IF THIS FORM IS BEING USED TO REPORT AND CERTIFY COMPLIANCE OF THE ENTIRE SOURCE.
- COMPLETE ITEM 8 BELOW IF THIS FORM IS BEING USED TO REPORT AND CERTIFY COMPLIANCE OF SPECIFIC ITEMS OF EQUIPMENT ONLY.

7) WAS THE SOURCE IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS FOR THE ENTIRE REPORTING PERIOD? [X] YES [ ] NO

IF YES, THEN THE "REPORT INFORMATION" SECTION ON PAGE 3 OF THIS FORM DOES NOT NEED TO BE COMPLETED.

IF NO, THEN COMPLETE AND SUBMIT FORM CAAPP-405 -"EXCESS EMISSIONS, MONITORING EQUIPMENT DOWNTIME, AND MISCELLANEOUS REPORTING FORM."

8a) LIST THE EMISSION UNIT(S) AND CONTROL EQUIPMENT FOR WHICH THIS FORM IS BEING COMPLETED TO REPORT AND CERTIFY COMPLIANCE WITH (IF ADDITIONAL SPACE IS NEEDED FOR ITEM 10, ATTACH AND LABEL AS EXHIBIT 400-A):

See Attached Report.

b) IDENTIFY THE APPLICABLE REQIREMENT(S) FOR WHICH THIS FORM IS BEING USED TO REPORT AND CERTIFY COMPLIANCE WITH:

See Attached Report.

c) IDENTIFY THE APPLICABLE REQIREMENT(S) WHICH REQUIRE THAT THIS REPORT OR CERTIFICATION BE SUBMITTED:

Semi-Annual NSPS Report

d) WERE THE ABOVE REFERENCED ITEMS IN 8(a) IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS FOR THE ENTIRE REPORTING PERIOD? [X] YES [ ] NO

IF YES, THEN THE "REPORT INFORMATION" SECTION ON PAGE 3 OF THIS FORM DOES NOT NEED TO BE COMPLETED.

IF NO, THEN COMPLETE AND SUBMIT FORM CAAPP-405 - "EXCESS EMISSIONS, MONITORING EQUIPMENT DOWNTIME, AND MISCELLANEOUS REPORTING FORM."

WM01405

REPORT INFORMATION

9) TITLE OF REPORT BEING SUBMITTED:

NSPS Semi-Annual Report

10) IDENTIFY THE APPLICABLE REQIREMENT(S) WHICH REQUIRES THIS REPORT (IF APPLICABLE):

40 CFR 60.757(f) NSPS

11) BRIEFLY EXPLAIN WHAT THIS REPORT COVERS:

This Semi-Annual NSPS Report is a summary of any exceedences of monitored parameters, periods of downtime for gas collection/control devices, and any expansions/modifications to the gas collection system.

12) ATTACH THE REPORT TO THIS FORM.

See Attached Report

SIGNATURE BLOCK

NOTE: THIS CERTIFICATION MUST BE SIGNED BY A RESPONSIBLE OFFICIAL. APPLICATIONS WITHOUT A SIGNED CERTIFICATION WILL BE RETURNED AS INCOMPLETE.

13) I CERTIFY UNDER PENALTY OF LAW THAT, BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION CONTAINED IN THIS APPLICATION ARE TRUE, ACCURATE AND COMPLETE.

AUTHORIZED SIGNATURE:

BY: _____
AUTHORIZED SIGNATURE

DISTRICT ENGINEER
TITLE OF SIGNATORY

ERNEST H DENNISON
TYPED OR PRINTED NAME OF SIGNATORY

7 / 16 / 12
DATE

APPLICATION PAGE _____

WM01406

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF AIR POLLUTION CONTROL – PERMIT SECTION
P.O. BOX 19506
SPRINGFIELD, ILLINOIS 62794-9506

FOR APPLICANT'S USE
Revision #: _____
Date: ____ / ____ / ____
Page _____ of _____
Source Designation: _____

DELEGATION OF AUTHORITY FOR RESPONSIBLE OFFICIAL TO A REPRESENTATIVE

FOR AGENCY USE ONLY
ID NUMBER:
PERMIT #:
DATE:

THIS FORM SHALL BE USED BY A RESPONSIBLE OFFICIAL TO DELEGATE AUTHORITY TO A REPRESENTATIVE OF SUCH PERSON FOR SIGNATURE ON APPLICATIONS OR CERTIFICATION OF REPORTS TO BE SUBMITTED PURSUANT TO THE CLEAN AIR ACT.

THIS FORM SHALL ONLY BE USED FOR A CORPORATION AT WHICH A PRESIDENT, SECRETARY, TREASURER, OR VICE-PRESIDENT OF THE CORPORATION IN CHARGE OF BUSINESS FUNCTION, OR ANY OTHER PERSON WHO PERFORMS SIMILAR POLICY OR DECISION MAKING FUNCTIONS FOR THE CORPORATION TO TRANSFER THE AUTHORITY AS A RESPONSIBLE OFFICIAL TO A REPRESENTATIVE OF SUCH PERSON. THE REPRESENTATIVE OF SUCH PERSON MUST BE RESPONSIBLE FOR THE OVERALL OPERATION OF ONE OR MORE MANUFACTURING, PRODUCTION, OR OPERATING FACILITIES APPLYING FOR OR SUBJECT TO A PERMIT.

NOTE: THIS TRANSFER OF DELEGATION OF AUTHORITY IS APPLICABLE ONLY IF THE FACILITY EMPLOYS MORE THAN 250 PERSONS OR HAS A GROSS ANNUAL SALES OR EXPENDITURES EXCEEDING $25 MILLION (IN SECOND QUARTER 1980 DOLLARS).

SOURCE INFORMATION

1) SOURCE NAME: Cottonwood Hills Recycling and Disposal Facility

2) DATE FORM PREPARED: 1/17/12

3) SOURCE ID NO. (IF KNOWN): 163075AAL

TRANSFER OF AUTHORITY

4) I, THE UNDERSIGNED, BEING A PRESIDENT, SECRETARY, TREASURER, OR VICE-PRESIDENT OF THE CORPORATION IN CHARGE OF BUSINESS FUNCTION, OR OTHER PERSON WHO PERFORMS SIMILAR POLICY OR DECISION MAKING FUNCTIONS FOR THE CORPORATION, HEREBY TRANSFER THE AUTHORITY AS A RESPONSIBLE OFFICIAL TO Ernest H. Dennison, THEY BEING A REPRESENTATIVE AND RESPONSIBLE FOR THE OVERALL OPERATION OF ONE OR MORE MANUFACTURING, PRODUCTION, OR OPERATING FACILITIES APPLYING FOR OR SUBJECT TO A PERMIT.

AUTHORIZED SIGNATURE

Vice President and Assistant Secretary
TITLE OF SIGNATORY

Dennis M. Wilt
TYPED OR PRINTED NAME OF SIGNATORY

1 / 17 / 12
DATE

Ernest H. Dennison
DELEGATED REPRESENTATIVE

District Engineer
TITLE OF DESIGNATED REPRESENTATIVE

THIS AGENCY IS AUTHORIZED TO REQUIRE THIS INFORMATION UNDER ILLINOIS REVISED STATUTES, 1991, AS AMENDED 1992, CHAPTER 111 1/2, PAR. 1039.5. DISCLOSURE OF THIS INFORMATION IS REQUIRED UNDER THAT SECTION. FAILURE TO DO SO MAY PREVENT THIS FORM FROM BEING PROCESSED AND COULD RESULT IN THE APPLICATION BEING DENIED. THIS FORM HAS BEEN APPROVED BY THE FORMS MANAGEMENT CENTER.

APPLICATION PAGE _____

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WM01407

ATTACHMENT 1

5-15 EXCEEDANCE REPORT: Cottonwood Hills Landfill

Range: 01-Jan-2012 to 30-Jun-2012

Report Generated: 16-Jul-2012 1:40:08PM

Results for Oxygen (O2)

Range	Device ID	Monitoring Date/Time	Days Exceeded	% O2	% N2	Static Press	Gas Temp	Comments
0 to 5	CWHMW009	4/18/2012 9:23:28 AM	Initial	13.4		-0.60	88.00	NSPS/EG CAI;Dec. Flow/Vac.;Wellhead Damaged
0 to 5	CWHMW009	4/18/2012 9:23:28 AM	Initial	13.4		-0.40	89.00	
5 to 15	CWHMW009	4/27/2012 11:38:42 AM	9	15.6		-0.10	85.00	NSPS/EG CAI;Dec. Flow/Vac.;Watered In;Wellhead Damaged
5 to 15	CWHMW009	4/27/2012 11:38:42 AM	9	15.6		-0.20	85.00	
15+	CWHMW009	5/15/2012 11:57:31 AM	27	14.4		-0.70	93.00	NSPS/EG CAI;Dec. Flow/Vac.;Barely Open;Wellhead Damaged
15+	CWHMW009	5/15/2012 11:57:31 AM	27	14.4		-0.20	93.00	
15+	CWHMW009	6/20/2012 12:09:01 PM	63	5.9		-0.10	100.00	Barely Open;NSPS/EG CAI;No Adj. Made
15+	CWHMW009	6/20/2012 12:09:01 PM	63	5.9		-0.10	100.00	
0 to 5	CWHMW020	5/24/2012 11:33:54 AM	Initial	7.5		-16.60	120.00	NSPS/EG CAI;Dec. Flow/Vac.
0 to 5	CWHMW020	5/24/2012 11:33:54 AM	Initial	7.5		-5.30	116.00	
OK	CWHMW020	5/25/2012 9:22:55 AM	1	0.4		-0.40	121.00	NSPS/EG CAI;Inc. Flow/Vac.
OK	CWHMW020	5/25/2012 9:22:55 AM	1	0.4		-0.70	121.00	

Results for Static Pressure

Range	Device ID	Monitoring Date/Time	Days Exceeded	Static Press ("H2O)	% O2	% N2	Gas Temp	Comments

Results for Gas Temperature

Range	Device ID	Monitoring Date/Time	Days Exceeded	Gas Temp (Deg F	% O2	% N2	Static Pressure	Comments

0 to 5	CWHMW008	7/20/2011 9:33:11 AM	Initial	131.00	0.20	-4.20	NSPS/EG CAI;Inc. Flow/Vac.
0 to 5	CWHMW008	7/20/2011 9:33:11 AM	0	131.00	0.20	-4.40	NSPS/EG CAI;Inc. Flow/Vac.
5 to 15	CWHMW008	8/3/2011 11:22:29 AM	14	131.00	0.20	-4.80	NSPS/EG CAI;No Adj. Made
5 to 15	CWHMW008	8/3/2011 11:22:29 AM	14	131.00	0.20	-4.80	NSPS/EG CAI;No Adj. Made
15+	CWHMW008	8/11/2011 3:47:03 PM	22	131.00	0.30	-4.60	NSPS/EG CAI;Dec. Flow/Vac., no smoke or odor noted
15+	CWHMW008	8/11/2011 3:47:03 PM	22	131.00	0.30	-3.40	NSPS/EG CAI;Dec. Flow/Vac., no smoke or odor noted
15+	CWHMW008	9/8/2011 2:35:36 PM	50	134.00	0.00	-0.10	NSPS/EG CAI;Inc. Flow/Vac.No smoke or odor noted
15+	CWHMW008	9/8/2011 2:35:36 PM	50	133.00	0.00	-0.40	NSPS/EG CAI;Inc. Flow/Vac.No smoke or odor noted
15+	CWHMW008	10/7/2011 11:00:01 AM	79	132.00	0.00	-2.50	Inc. Flow/Vac., No Smoke or Odor noted
15+	CWHMW008	10/7/2011 11:00:01 AM	79	132.00	0.00	-3.90	Inc. Flow/Vac., No Smoke or Odor noted
15+	CWHMW008	11/3/2011 10:23:02 AM	106	132.00	0.10	-6.80	Dec. Flow/Vac.
15+	CWHMW008	11/3/2011 10:23:02 AM	106	131.00	0.10	-6.50	Dec. Flow/Vac.
15+	CWHMW008	11/10/2011 10:38:26 AM	113	130.00	0.00	-5.80	No Adj. Made
15+	CWHMW008	11/10/2011 10:38:26 AM	113	130.00	0.00	-5.70	No Adj. Made
15+	CWHMW008	12/8/2011 2:24:51 PM	141	131.00	0.00	-5.50	Inc. Flow/Vac., No smoke or odor noted
15+	CWHMW008	12/8/2011 2:24:51 PM	141	131.00	0.00	-8.10	Inc. Flow/Vac., No smoke or odor noted
15+	CWHMW008	1/26/2012 10:31:47 AM	190	132.00	0.00	-14.20	NSPS/EG CAI,Dec. Flow/Vac.;NSPS/EG CAI
15+	CWHMW008	1/26/2012 10:31:47 AM	190	130.00	0.00	-10.30	NSPS/EG CAI,Dec. Flow/Vac.;NSPS/EG CAI
OK	CWHMW008	1/26/2012 4:47:00 PM	190				NSPS/EG Corrective Action Completed (CAC)
0 to 5	CWHMW008	2/23/2012 10:11:50 AM	Initial	132.00	0.00	-1.00	NSPS/EG CAI;Dec. Flow/Vac.
OK	CWHMW008	2/23/2012 10:11:50 AM	0	130.00	0.00	-0.70	NSPS/EG CAI;Dec. Flow/Vac.
0 to 5	CWHMW008	4/18/2012 9:36:20 AM	Initial	138.00	0.00	-0.60	NSPS/EG CAI;Inc. Flow/Vac.
0 to 5	CWHMW008	4/18/2012 9:36:20 AM	0	139.00	0.00	-1.70	NSPS/EG CAI;Inc. Flow/Vac.
5 to 15	CWHMW008	4/27/2012 11:32:47 AM	9	134.00	0.00	-7.00	NSPS/EG CAI;Dec. Flow/Vac.
5 to 15	CWHMW008	4/27/2012 11:32:47 AM	9	134.00	0.00	-4.20	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW008	5/15/2012 12:12:36 PM	27	136.00	0.00	-2.40	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW008	5/15/2012 12:12:36 PM	27	136.00	0.00	-2.30	NSPS/EG CAI;Dec. Flow/Vac.

15+	CWHMW008	6/20/2012 2:33:44 PM	63	132.00	0.00	-1.50	Inc. Flow/Vac.
15+	CWHMW008	6/20/2012 2:33:44 PM	63	132.00	0.00	-1.80	Inc. Flow/Vac.
0 to 5	CWHMW009	12/15/2011 11:55:54 AM	Initial	157.00	0.10	-17.50	NSPS/EG CAI;Inc. Flow/Vac., No smoke or odor observed
0 to 5	CWHMW009	12/15/2011 2:07:12 PM	0	158.00	0.50	-25.40	NSPS/EG CAI;Inc. Flow/Vac.
0 to 5	CWHMW009	12/15/2011 2:07:12 PM	0	158.00	0.50	-25.40	NSPS/EG CAI;Inc. Flow/Vac.
0 to 5	CWHMW009	12/16/2011 3:51:46 PM	1	158.00	0.60	-26.30	NSPS/EG CAI;Dec. Flow/Vac.
0 to 5	CWHMW009	12/16/2011 3:51:46 PM	1	155.00	0.60	-21.20	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW009	1/12/2012 10:36:29 AM	28	144.00	0.00	-7.90	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW009	1/12/2012 10:36:29 AM	28	144.00	0.00	-7.30	NSPS/EG CAI;Dec. Flow/Vac.
OK	CWHMW009	1/12/2012 12:23:00 PM	28				NSPS/EG Corrective Action Completed (CAC)
0 to 5	CWHMW009	1/27/2012 12:15:49 PM	Initial	152.00	0.90	-5.80	NSPS/EG CAI;Dec. Flow/Vac.
OK	CWHMW009	1/27/2012 12:15:49 PM	0	148.00	0.90	-5.20	NSPS/EG CAI;Dec. Flow/Vac.
0 to 5	CWHMW010	12/8/2011 2:13:24 PM	Initial	146.00	0.00	-1.90	No Adj. Made, No smoke or odor noted
0 to 5	CWHMW010	12/8/2011 2:13:24 PM	0	147.00	0.00	-2.00	No Adj. Made, No smoke or odor noted
5 to 15	CWHMW010	12/15/2011 11:46:00 AM	7	145.00	0.20	-4.20	Inc. Flow/Vac.;Surging
5 to 15	CWHMW010	12/15/2011 11:46:00 AM	7	154.00	0.20	-21.70	Inc. Flow/Vac.;Surging
5 to 15	CWHMW010	12/15/2011 1:59:58 PM	7	155.00	0.50	-27.00	NSPS/EG CAI;Inc. Flow/Vac.
5 to 15	CWHMW010	12/15/2011 1:59:58 PM	7	154.00	0.50	-27.00	NSPS/EG CAI;Inc. Flow/Vac.
5 to 15	CWHMW010	12/16/2011 3:42:57 PM	8	154.00	0.80	-28.40	NSPS/EG CAI;Dec. Flow/Vac., No smoke or odor observed
5 to 15	CWHMW010	12/16/2011 3:42:57 PM	8	153.00	0.80	-24.70	NSPS/EG CAI;Dec. Flow/Vac., No smoke or odor observed
15+	CWHMW010	1/26/2012 10:43:20 AM	49	153.00	0.00	-13.00	NSPS/EG CAI;Barely Open;Dec. Flow/Vac.
15+	CWHMW010	1/26/2012 10:43:20 AM	49	147.00	0.00	-8.60	NSPS/EG CAI;Barely Open;Dec. Flow/Vac.
15+	CWHMW010	2/22/2012 12:45:14 PM	76	148.00	0.00	-1.00	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW010	2/22/2012 12:45:14 PM	76	148.00	0.00	-0.80	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW010	3/9/2012 8:34:47 AM	92	138.00	0.40	-4.00	Barely Open;No Adj. Made
15+	CWHMW010	3/9/2012 8:34:47 AM	92	128.00	0.40	-4.20	Barely Open;No Adj. Made
15+	CWHMW010	4/12/2012 12:40:49 PM	126	148.00	0.10	-3.20	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW010	4/12/2012 12:40:49 PM	126	148.00	0.10	-2.30	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW010	5/15/2012 12:02:28 PM	159	149.00	0.00	-4.40	NSPS/EG CAI;No Adj. Made
15+	CWHMW010	5/15/2012 12:02:28 PM	159	149.00	0.00	-4.40	NSPS/EG CAI;No Adj. Made

15+	CWHMW010	6/20/2012 1:45:14 PM	195	146.00	0.00	-4.20	No Adj. Made
15+	CWHMW010	6/20/2012 1:45:14 PM	195	146.00	0.00	-4.20	No Adj. Made
0 to 5	CWHMW019	12/8/2011 3:05:31 PM	Initial	131.00	0.00	-0.90	No Adj. Made, No smoke or odor noted
0 to 5	CWHMW019	12/8/2011 3:05:31 PM	0	131.00	0.00	-0.90	No Adj. Made, No smoke or odor noted
5 to 15	CWHMW019	12/15/2011 12:00:52 PM	7	131.00	0.10	-2.10	NSPS/EG CAI;Inc. Flow/Vac.
5 to 15	CWHMW019	12/15/2011 12:00:52 PM	7	135.00	0.10	-11.60	NSPS/EG CAI;Inc. Flow/Vac.
5 to 15	CWHMW019	12/15/2011 2:11:38 PM	7	137.00	0.20	-17.50	NSPS/EG CAI;No Adj. Made
5 to 15	CWHMW019	12/15/2011 2:11:38 PM	7	136.00	0.20	-17.50	NSPS/EG CAI;No Adj. Made
5 to 15	CWHMW019	12/16/2011 3:56:48 PM	8	138.00	0.30	-18.30	NSPS/EG CAI;Dec. Flow/Vac.,No smoke or odor observed
5 to 15	CWHMW019	12/16/2011 3:56:48 PM	8	137.00	0.30	-13.90	NSPS/EG CAI;Dec. Flow/Vac.,No smoke or odor observed
15+	CWHMW019	1/27/2012 12:10:32 PM	50	137.00	0.90	-8.10	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW019	1/27/2012 12:10:32 PM	50	135.00	0.90	-6.00	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW019	2/22/2012 12:35:04 PM	76	137.00	0.00	-2.40	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW019	2/22/2012 12:35:04 PM	76	136.00	0.00	-2.00	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW019	3/9/2012 11:37:32 AM	92	135.00	0.20	-2.40	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW019	3/9/2012 11:37:32 AM	92	134.00	0.20	-1.80	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW019	4/18/2012 12:10:19 PM	132	136.00	0.00	-0.20	NSPS/EG CAI;Inc. Flow/Vac.
15+	CWHMW019	4/18/2012 12:10:19 PM	132	137.00	0.00	-1.70	NSPS/EG CAI;Inc. Flow/Vac.
15+	CWHMW019	5/17/2012 10:54:31 AM	161	138.00	0.10	-5.50	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW019	5/17/2012 10:54:31 AM	161	138.00	0.10	-5.00	NSPS/EG CAI;Dec. Flow/Vac.
15+	CWHMW019	6/20/2012 3:05:42 PM	195	134.00	0.00	-3.90	NSPS/EG CAI;No Adj. Made
15+	CWHMW019	6/20/2012 3:05:42 PM	195	135.00	0.00	-3.90	NSPS/EG CAI;No Adj. Made
0 to 5	CWHMW019	6/20/2012 3:05:42 PM	Initial	134.00	0.00	-3.90	NSPS/EG CAI;No Adj. Made
0 to 5	CWHMW019	6/20/2012 3:05:42 PM	0	135.00	0.00	-3.90	NSPS/EG CAI;No Adj. Made

Results for Nitrogen (N2)

Range	Device ID	Monitoring Date/Time	Days Exceeded	% N2	% O2	Static Pressure	Gas Temp	Comments

ATTACHMENT 2

COTTONWOOD HILLS RECYCLING AND DISPOSAL FACILITY
GAS WELL USEPA VARIANCE APPROVALS

Gas Well	Approved Temp	USEPA Approval	Comments
MW07R	Temporary	06/24/10	Request 6 month approval of 145 F and O2 variance on 06/08/10 Approve 120 days from 06/02/10 to be below 131 F and O2 below 5%
			Requested permanent approval of 140 F and O2 of 10% on 08/06/10 Well Decommissioned
MW07R1	145 F Temporary	04/07/11	Requested permanent approval of 145 F on 02/25/11 Requested permanent approval of 145 F on 04/04/11 USEPA approved a temporary variance for 8 months on 04/07/11 Requested permanent approval of 140 F on 12/07/11
MW08			Requested permanent approval of 135 F on 01/23/12
MW09	149 F Temporary	04/10	Requested permanent approval of 150 F on 03/23/10 Temporary approval for 6 months
	Pressure/Temp	05/17/10	Notify high CO*, request well shutoff & pressure variance on 04/23/10 Approved temporary variances for 120 days from 04/12/10
	150 F	**04/07/11**	Requested permanent approval of 150 F on 08/06/10 Requested permanent approval of 154 F on 02/25/11 Requested permanent approval of 149 F on 04/04/11 **Approved 150 F**
			Requested permanent approval of 155 F on 05/20/11 Requested permanent approval of 160 F on 01/23/12
MW10	Pressure/Temp	06/10/10	Requested approval of 140 F and positive pressure on 05/27/10 Approved temporary variances for 120 days from 05/14/10
	145 F	**04/07/11**	Requested permanent approval of 140 F on 08/06/10 Requested permanent approval of 147 F on 04/04/11 **Approved 145 F**
			Requested permanent approval of 150 F on 05/20/11 Requested permanent approval of 155 F on 01/23/12
MW19			Requested permanent approval of 140 F on 05/20/11

* High CO was found to be from interferrence with tube reading ... Lab testing verified low CO

WASTE MANAGEMENT

WASTE MANAGEMENT OF ILLINOIS, INC.
601 Madison Road
East St. Louis, Illinois 62201
(618) 271-6788
(618) 271-1227 Fax

January 24, 2012

Mr. George Czerniak, Chief
USEPA (AE-17J) – Air & Radiation Division
Air Enforcement and Compliance Assurance Branch
77 West Jackson Boulevard
Chicago, Illinois 60604

Cottonwood Hills Recycling and Disposal Facility - Site I.D. No. 163075AAL
Request for Higher Operating Temperatures in Landfill Gas Extraction Wells MW08, MW09 and MW10

Dear Mr. Czerniak:

This letter is written as a followup to a previous variance requested dated May 20, 2011 which provided notification that the temperature in the above referenced landfill gas extraction wells exceeded either the 55°C (131°F) temperature limit or the previously requested approved temperature variances. New temperature variance requests are discussed for each well below:

MW08

This letter requests a higher operating temperature of 135°F for gas collection well MW08. Well MW08 had a temperature of 134°F during the September 8, 2011 monitoring event (see attached data table). Corrective actions were implemented at the time of monitoring by adjusting wellhead vacuum which reduced the temperature to 133°F. Additional adjustments to the wellhead vacuum were made along with the cooler winter weather returned the operating temperature to 131°F. However, once ambient air temperatures rise again in the spring, we believe the well temperature will rise again. Since the CO readings were all below 100 ppm and there is no evidence of smoke or subsidence, **this letter requests a permanent higher operating temperature of 135°F or below in well MW08.**

MW09

The USEPA approved a higher operating temperature variance of 150°F or below for landfill gas extraction well MW09 on April 7, 2011. The February 15, 2011 monitoring of well MW09 had an initial temperature reading of 154°F. Corrective action was initiated immediately be reducing the vacuum at the time of monitoring. A carbon monoxide (CO) reading was taken on well MW09 on February 15, 2011 and the Drager tube reading indicated CO was less than 100 ppm. A permanent higher operating temperature of 154°F was originally requested on February 25, 2011 but was subsequently lowered due to lower gas temperatures in the well. Gas temperatures in the well have risen again to the near the previous levels (152°F on May 13, 2011) while CO has remained low (CO < 100 ppm). Since there was no indication of subsurface oxidation and these temperatures are typical for gas wells in the area with substantial waste thickness (MW09

was drilled to 112 ft deep), a variance request was submitted to the USEPA on May 20, 2011 requesting a higher permanent higher operating temperature of 155°F or below in well MW09. Additional data has since been collected for the well (see attached data table). MW09 has continued to have low CO readings (less than 100 ppm) and no evidence of smoke or fire, therefore **this letter requests a permanent higher operating temperature of 160°F or below in well MW09.**

MW10

The USEPA approved a higher operating temperature variance of 145°F or below for landfill gas extraction well MW10 on April 7, 2011. Corrective actions of adjusting well vacuum showed that a higher operating temperature in well MW10 is needed in order to allow for an increase in vacuum to collect a sufficient amount of gas from the well. Since there has been no indication of subsurface oxidation and these temperatures are typical for gas wells in the area with substantial waste thickness and operationally flexibility is needed (ability to pull gas from the well with a higher vacuum), a variance request for an increased operating temperature was sent to the USEPA on May 20, 2011 that requested a permanent higher operating temperature of 150°F or below in well MW10. Additional data has since been collected (see attached data table). MW10 has continued to have low CO readings (125 ppm or less) and no evidence of smoke or fire. Therefore, **this letter requests a permanent higher operating temperature of 155°F or below in well MW10.**

SUMMARY

We do not believe any of the elevated well temperatures are due to subsurface oxidation since there are no indications of fire, nor smoke, nor subsidence around the wells, nor elevated CO readings. There is also no reason to believe there are any structural problems related to the operation of the wells since oxygen levels in all three wells are less than 1%. In order to properly operate the wells with a vacuum and to collect sufficient volumes of gas from the wells higher operating temperatures are needed.

If you require additional information, please call me at (618) 271-6788 Ext 2122 or 314-568-2025.

Sincerely,
Waste Management of Illinois, Inc.

Ernest H Dennison, PE.
District Engineer

Cc: IEPA-BOA-Compliance and Enforcement Section
1021 North Grand Avenue East
Springfield, Illinois 62702

COTTONWOOD HILLS RECYCLING AND DISPOSAL FACILITY
LANDFILL GAS EXTRACTION WELL MW08

Well	Date	CH4 %	CO2 %	O2 %	Initial Static Pressure ("H2O)	Initial Temperature (Deg F)	Adjusted Temperature (Deg F)	Adjusted Static Pressure ("H2O)	Initial Flow SCFM	Adjusted Flow SCFM	CO ppm
MW08	09/08/11	57.6	39.7	0.0	-0.1	134	133	-0.4	25	27	75
MW08	10/07/11	57.1	39.5	0.0	-2.5	132	132	-3.9	33	61	20
MW08	11/03/11	46.4	38.5	0.1	-6.8	132	131	-6.5	64	62	
MW08	11/10/11	50.3	37.0	0.0	-5.8	130	130	-5.7	55	55	
MW08	12/08/11	59.4	39.8	0.0	-5.5	131	131	-8.1	55	93	0

COTTONWOOD HILLS RECYCLING AND DISPOSAL FACILITY
LANDFILL GAS EXTRACTION WELL MW09

Well	Date	CH4 %	CO2 %	O2 %	Initial Static Pressure ("H2O)	Initial Temperature (Deg F)	Adjusted Temperature (Deg F)	Adjusted Static Pressure ("H2O)	Initial Flow SCFM	Adjusted Flow SCFM	CO ppm
MW09	09/21/10	47.2	40.6	0.0	-2.0	140	142	-2.1	10	7	
MW09	10/13/10	51.3	40.8	0.0	-4.7	143	143	-4.7	15	15	<100
MW09	11/08/10	50.8	39.8	0.0	-4.5	140	138	-4.5	39	38	
MW09	12/06/10	50.8	39.5	0.2	-4.5	142	141	-4.4	8	5	
MW09	01/07/11	51.9	38.9	0.0	-4.9	139	138	-7.0	18	38	
MW09	02/15/11	50.7	40.2	0.0	-9.4	154	149	-2.5	51	10	<100
MW09	02/23/11	48.9	40.4	0.0	-0.9	147	147	-0.9	11	4	
MW09	03/04/11	47.5	39.2	0.2	-1.1	140	141	-1.1	5	4	
MW09	04/05/11	49.4	40.2	0.0	-3.6	140	139	-3.5	8	8	
MW09	04/07/11	**USEPA approved permanent temperature variance of 150 F on 04/07/11**									
MW09	04/14/11	50.0	40.8	0.0	-2.3	144	144	-2.3	11	11	<100
MW09	05/13/11	49.4	40.7	0.2	-2.0	152	151	-2.0	9	10	25
MW09	05/20/11	**Variance request was sent to USEPA on 05/20/11 for permanent temperature variance of 155 F**									
MW09	07/20/11	44.4	41.0	0.3	-0.5	151	150	-0.5	4	3	75
MW09	08/03/11	45.3	40.3	0.2	-1.6	152	151	-1.4	7	4	
MW09	08/11/11	42.3	40.5	0.3	-0.6	149	149	-0.4	8	5	100
MW09	09/08/11	30.6	42.6	0.0	-2.3	149	149	-1.9	5	5	75
MW09	10/07/11	44.0	39.8	0.0	-2.0	152	147	-1.5	10	6	20
MW09	11/03/11	45.0	44.9	0.0	-2.2	148	145	-2.2	20	20	
MW09	12/08/11	47.3	40.6	0.0	-2.7	153	152	-2.4	8	7	0
MW09	12/15/11	45.9	41.9	0.1	-3.3	148	157	-17.5	15	103	0
MW09	12/15/11	43.1	40.9	0.5	-25.4	158	158	-25.4	76	76	
MW09	12/16/11	45.4	39.7	0.6	-26.3	158	155	-21.2	71	38	

COTTONWOOD HILLS RECYCLING AND DISPOSAL FACILITY
LANDFILL GAS EXTRACTION WELL MW10

Well	Date	CH4 %	CO2 %	O2 %	Initial Static Pressure ("H2O)	Initial Temperature (Deg F)	Adjusted Temperature (Deg F)	Adjusted Static Pressure ("H2O)	Initial Flow SCFM	Adjusted Flow SCFM	CO ppm
MW10	08/05/10	56.9	41.6	0.0	-0.9	137	138	-1.0	8	11	
MW10	08/19/10	55.5	42.9	0.0	-2.0	142	140	-1.5	17	12	2000*
MW10	09/21/10	53.3	39.3	0.1	-0.3	138	139	-0.9	18	30	
MW10	10/13/10	57.6	42.1	0.0	-3.7	140	139	-6.0	27	51	< 100 **
MW10	11/08/10	55.0	40.3	0.0	-10.5	139	139	-11.5	56	64	
MW10	12/06/10	54.4	40.2	0.1	-14.6	140	140	-17.8	69	96	
MW10	01/07/11	50.6	39.1	0.0	-21.2	139	139	-21.7	88	90	
MW10	02/15/11	53.0	40.7	0.0	-22.0	147	142	-10.5	94	11	< 100 **
MW10	02/23/11	56.3	42.2	0.0	-0.3	142	143	-0.3	31	32	
MW10	03/04/11	54.5	42.2	0.2	-0.5	136	136	-0.5	3	3	
MW10	04/05/11	54.8	42.6	0.1	-3.3	136	136	-3.3	15	15	
MW10	04/07/11	**USEPA approved permanent temperature variance of 145 F on 04/07/11**									
MW10	04/14/11	51.0	41.5	0.0	-2.0	141	140	-3.0	14	15	< 100
MW10	05/13/11	49.4	41.1	0.4	-1.8	147	146	-1.8	15	15	25
MW10	05/20/11	**Variance request was sent to USEPA on 05/20/11 for permanent temperature variance of 150 F**									
MW10	07/20/11	50.7	43	0.2	-0.1	143	142	0.0	3	4	100
MW10	07/29/11	50.4	43.2	0.2	-0.2	144	146	-0.3	26	25	
MW10	08/03/11	51.8	41.5	0.3	-1.4	149	149	-1.4	10	13	
MW10	08/11/11	50.6	41.2	0.4	-1.0	149	147	-0.5	10	8	100
MW10	08/24/11	48.8	42.7	0.4	-0.6	147	149	-0.5	19	17	125
MW10	09/08/11	49.3	43.6	0.1	-0.8	149	149	-0.7	12	11	75
MW10	10/07/11	52.3	40.5	0.3	-1.1	147	145	-0.8	9	8	50
MW10	11/03/11	49.3	44.5	0.1	-0.9	142	142	-1.0	12	8	
MW10	12/08/11	52.2	43.3	0.0	-1.9	146	147	-2.0	13	14	0
MW10	12/15/11	50.6	43.3	0.2	-4.2	145	154	-21.7	20	140	
MW10	12/15/11	47.7	41.8	0.5	-27.0	155	154	-27.0	102	103	
MW10	12/16/11	46.7	39.6	0.8	-28.4	154	153	-24.7	90	69	0

ATTACHMENT 3

COTTONWOOD HILLS GAS COLLECTION SYSTEM
REPORTING FOR NON OPERATING PERIODS OF CONTROL DEVICE
3000 SCFM OPEN FLARE

Date	Time	Description of Outage	Time Back In Service	Down Time Hours	Performed By
01/17/12	2:12 AM	Utility Power Surge	01/17/12 @ 8:42 AM	6.5	DY
01/24/12	6:10 AM	Utility Power Surge - Auto Restart	01/24/12 @ 6:28 AM	0.3	DY
01/24/12	2:30 PM	Utility Power Surge	01/24/12 @ 4:30 PM	2.0	DY
02/03/12	1:52 PM	Utility Power Surge - Auto Restart	02/03/12 @ 2:06 PM	0.2	DY
02/10/12	4:48 PM	Utility Power Surge burned up surge protectors	02/14/12 @ 2:00 PM	93.2	DY
02/14/12	2:58 PM	Auto restart after surge	02/14/12 @ 3:12 PM	0.2	DY
02/16/12	1:08 PM	Utility Power Surge	02/16/12 @ 2:06 PM	1.0	DY
02/18/12	8:22 AM	Utility Power Surge	02/18/12 @ 2:16 PM	5.9	DY
02/20/12	3:32 AM	Utility Power Surge	02/20/12 @ 7:06 AM	3.6	DY
02/22/12	8:52 AM	Utility Power Surge	02/22/12 @ 10:18 AM	1.4	DY
02/25/12	8:00 AM	Utility turned Power Off to Test	02/25/12 @ 5:40 PM	9.7	DY
03/02/12	1:26 PM	Utility Power Outage	03/02/12 @ 1:36 PM	0.2	DY
03/06/12	12:26 PM	Utility Power Outage - Auto Restart	03/06/12 @ 12:46 PM	0.3	DY
03/28/12	5:04 PM	Utility Power Outage - Auto Restart	03/28/12 @ 5:54 PM	0.8	DY
03/31/12	1:04 PM	Flex hose off of well MW20	04/01/12 @ 8:14 AM	19.2	DY
04/01/12	10:30 AM	Flex hose off of well MW20	04/02/12 @ 8:58 AM	22.5	DY
04/02/12	10:44 AM	Repair flex hose at well MW20	04/02/12 @ 4:24 PM	5.7	DY
04/26/12	1:00 PM	Aux.blower fault	04/26/12 @ 2:00 PM	1.0	DY
04/26/12	3:32 PM	Aux.blower fault	04/27/12 @ 9:02 AM	17.5	DY
04/29/12	5:34 PM	Aux.blower fault found loose wires	04/30/12 @ 7:54 AM	14.3	DY
05/01/12	7:32 PM	Aux. contact fault	05/02/12 @ 7:16 AM	11.7	DY
05/02/12	1:20 PM	Aux. contact fault	05/02/12 @ 2:16 PM	0.9	DY
05/02/12	7:22 PM	Aux. contact fault swap wires to new contact.	05/03/12 @ 6:32 AM	11.2	DY
05/04/12	6:22 PM	Aux. contact fault	05/04/12 @ 7:46 AM	1.4	DY
05/04/12	10:38 PM	Aux. contact fault	05/05/12 @ 10:42 AM	12.1	DY
05/05/12	1:08 PM	Rite elec. Trouble shoot, Found loose wires	05/07/12 @ 12:42 PM	47.6	DY
05/17/12	9:58 AM	Elec. Co. replace Overhead wires.	05/17/12 @ 11:54 AM	1.9	DY
			TOTAL	292.3	

Per Sec. 60.757 : "Each owner or operator...shall include the following information with the annual report... description and duration of all periods when the control device was not operating for a period exceeding one hour and length of time the control device was not operating."

Verified by :
DOUG YEARIAN Gas Technician

WM01421

ATTACHMENT 4

COTTONWOOD HILLS RECYCLING AND DISPOSAL FACILITY
QUARTERLY SURFACE SCAN MONITORING EXCEEDENCES
FOR JANUARY 1, 2012 TO JUNE 30, 2012 REPORT PERIOD

Quarter	Date	Location		Methane Conc ppm	Corrective Action	Date	Methane Conc ppm	Additional Corrective Action	Date	Methane Conc ppm
		North	West							
1st	03/21/12			All < 500	None Required			NA		
2nd	06/20/12			All < 500	None Required			NA		